UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
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Summary of the Wolff-Alport Chemical Company site Ridgewood, Queens County, New York

The former Wolff-Alport Chemical Company operated a facility at 1127-1129 Irving Avenue, in Ridgewood, New York (Brooklyn/Queens border), from the 1920s until 1954. About 1940, the company began importing rare earth containing monazite, rich in thorium, from the Belgian Congo. The monazite sand was brought to the facility via a railroad spur. The company extracted the rare earth elements and sold them to various commercial entities. The company was a supplier of process residues containing thorium oxide to the Atomic Energy Commission (AEC), a forerunner to the U.S. Department of Energy (DOE), in the late 1940s to the very early 1950s.

Today the site consists of six parcels of land with a number of structures including a two-story masonry and frame building housing a delicatessen/grocery store, office space and residential apartments with an attached one-story building housing a tire shop, a one-story building with an auto repair shop and office space, a commercial building with an auto body shop, and two one-story buildings used as warehouses. The neighborhood around the site contains light industry, commercial businesses and residences. A public school (I.S. 384 Frances Carter School) and a private day care (Audrey Johnson Day Care Center) are located 900 feet southwest.

According to DOE records, the Wolff-Alport Chemical Company processed monazite sands in order to recover rare earths for commercial markets. Monazite sand contains thorium and, to a lesser degree, uranium and their decay products such as radium. The company disposed of the thorium and uranium contents of the monazite in liquid form into a sewer, and reportedly may have buried other wastes. In the fall of 1947, the AEC ordered Wolff-Alport to halt sewer disposal activity. Afterwards, the waste was sold to the AEC. By 1954, the company's operations at this site had ceased.

In 1987 the DOE informed the New York State Department of Environmental Conservation (NYSDEC) and the New York City Department of Health and Mental Hygiene (DOHMH) that the former Alport operation could have contaminated the site although the site did not qualify for a federally-funded cleanup under DOE's Formerly Utilized Sites Remedial Action Program (FUSRAP). At approximately the same time, two separate companies, Lynda Knitwear (1127-1127A Irving Avenue) and Beth-A-Way Beverage (1129 Irving Avenue), occupied the site.

In 1988, a DOHMH and EPA site investigation confirmed the presence of surface radiological contamination at the site. The level of contamination found was a concern in 1988, but below the allowable dose limit to the public from a licensed facility which was 500 millirem/year (mrem/yr). By 1994, the dose level changed from 500 to 100 mrem/yr. The EPA cleanup goal for unrestricted use over a lifetime is 15 mrem/yr. This measurement equates to a lifetime cancer risk of approximately 3 in 10,000.

In 2007, a joint survey of indoor and outdoor areas of the former site was conducted by NYSDEC and DOHMH and indicated that radiation at the site was present within portions of the buildings, the adjacent surface soil were above the average background concentrations for New York City and that certain current workers at the site (i.e., Primo Auto Body/Primo Storage and L.I. Iron Works, Inc.), may receive doses above levels recommended by DOHMH based on regulatory limits imposed on licensed activities

of 100 mrem/yr. Businesses and property owners were verbally notified by DOHMH in 2006/2007 of the extent of contamination and were given guidelines and recommendations for the use of the property and its employees as per a conversation with DOHMH.

A subsequent radiation survey was conducted in May 2009 and determined that a formal assessment was needed. The NYC Department of Design and Construction (DDC) secured funding from the EPA Region 2 Brownfields Office to conduct the survey. In addition to confirming the results from previous surveys conducted, this survey found deep soil contamination under the site down to at least 20 feet; contamination of a sewage line, surrounding soil and manholes; presence of thoron and radon gas; and indications of off-site spread of radioactive materials. The groundwater was not tested and the overall lateral and vertical extent of contamination were not delineated.

In December 2010 the DOHMH announced that it found radioactive material at the former Wolff-Alport site and that it will continue to test. According to press articles at the time the City also released a December 2010 statement that said that the material was not harmful. According to press accounts, at a December 2010 meeting of Queens Community Board 5, board members relayed news to the community that the 2007 and 2009 studies concluded that the Wolff-Alport site is not a significant risk to workers at the former Wolff-Alport site or to the surrounding community.

As recently as March 2011 the DOHMH prepared draft fact sheets and a draft letter for businesses owners, but they have not been finalized or distributed.

In February 2012 at the request of EPA, the Agency for Toxic Substances and Disease Registry (ATSDR) prepared a Health Consultation. Primarily, the consultation concluded that as a result of the radiological contamination at the site, workers at the auto body shop and pedestrians who frequently use the sidewalks at this location on Irving Avenue may have an elevated risk of cancer from exposure to ionizing radiation and their exposures may exceed the ATSDR Minimum Risks Levels (MRL) of 100 mrem/yr. It also concluded that it is unlikely that utility workers will exceed the MRL; however there are sufficient uncertainties in the measurements to suggest that there may be instances where the MRL could be exceeded.

Based on the available information provided by ATSDR, a CERCLA removal action is warranted at the site to address potential threats posed by the historical uses and releases of radioactive material at the site. The main areas of concern at this time include the former rail spur behind the building, and the buildings and sidewalks/street area with the highest levels and the most activity.

Due to the typically limited nature of CERCLA removal actions, additional investigatory and remedial work will be necessary at the site in the future. As such, it has been recommended that the site be evaluated for potential listing under the National Priorities List. A parallel course of remediation, listing the site under FUSRAP , is the responsibility of the DOE and is also under consideration.